AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Currently amended) An antenna device comprising:

a resonance element array having a plurality of resonance elements resonating at a fixed frequency arranged therein, and having variable reactance circuits connected to the resonance elements, respectively, whose reactance is changed by an applied voltage;

a voltage control portion that applies the voltage ~~adapted to be applied~~ to the variable reactance circuits;

a plurality of primary radiators for radiating an electromagnetic wave for excitation to the resonance element array or for receiving an electromagnetic wave radiated from the resonance element array, each of the plurality of primary radiators being allocated to a respective portion of the plurality of resonance elements; and

a lens or reflector collimator disposed such that the position of the resonance element array is substantially a focus plane.

3. (Currently amended) An antenna device as claimed in claim 2, wherein the voltage control portion is operative to control ~~an~~ the applied voltage to the variable reactance circuits so as to cause at least one of the plurality of resonance elements to operate as a wave director.

4. (Currently amended) An antenna device ~~as claimed in claim 1,~~ comprising:

a resonance element array having a plurality of resonance elements arranged therein, and having a circuit connected to each of the resonance elements for controlling a resonance frequency of the resonance elements;

a plurality of primary radiators for radiating an electromagnetic wave for excitation to the resonance element array or for receiving an electromagnetic wave radiated from the resonance element array, each of the plurality of primary radiators being allocated to a respective portion of the plurality of resonance elements; and

a lens or reflector collimator disposed such that the position of the resonance element array is substantially a focus plane,

wherein the plurality of primary radiators are arranged so that a radiation position to the resonance element array is optimized or a position for receiving the electromagnetic wave radiated from the resonance element array is optimized.

5. (Canceled)

6. (Currently amended) An antenna device ~~as claimed in claim 1,~~ comprising:

a resonance element array having a plurality of resonance elements arranged therein, and having a circuit connected to each of the resonance elements for controlling a resonance frequency of the resonance elements;

a plurality of primary radiators for radiating an electromagnetic wave for excitation to the resonance element array or for receiving an electromagnetic wave

radiated from the resonance element array, each of the plurality of primary radiators being allocated to a respective portion of the plurality of resonance elements; and

a lens or reflector collimator disposed such that the position of the resonance element array is substantially a focus plane,

wherein the plurality of resonance elements comprise linear conductors extending substantially perpendicular to an arrangement direction thereof and parallel to each other.

7. (Currently amended) An antenna device ~~as claimed in claim 1,~~ comprising:

a resonance element array having a plurality of resonance elements arranged therein, and having a circuit connected to each of the resonance elements for controlling a resonance frequency of the resonance elements;

a plurality of primary radiators for radiating an electromagnetic wave for excitation to the resonance element array or for receiving an electromagnetic wave radiated from the resonance element array, each of the plurality of primary radiators being allocated to a respective portion of the plurality of resonance elements; and

a lens or reflector collimator disposed such that the position of the resonance element array is substantially a focus plane,

wherein the plurality of resonance elements comprise linear conductors arranged substantially at a 45 degree angle relative to an arrangement direction thereof and parallel to each other.

8. (Previously presented) An antenna device as claimed in claim 2 , wherein a variable capacitance diode that changes a load reactance to the resonance element is contained in the variable reactance circuits, and wherein the control applies a reverse bias voltage to the variable capacitance diode.

9. (Previously presented) An antenna device as claimed in claim 2 , wherein a switching element for switching a load reactance to the resonance element is contained in the variable reactance circuits, and wherein the control applies a control voltage to the switching element.

10. (Currently amended) An antenna device as claimed in claim 2 , wherein an MEMS element ~~where a distance between electrodes is changed by a control voltage~~ is contained in the variable reactance circuits, and wherein the voltage control portion applies ~~the~~ a control voltage to the MEMS element.

11. (Previously presented) An antenna device as claimed in claim 9, wherein the switching element is an MEMS element.

12. – 14. (Canceled)

15. (Previously presented) An antenna device as claimed in claim 2, wherein the plurality of primary radiators are arranged so that a radiation position to the resonance element array is optimized or a position for receiving the electromagnetic wave radiated from the resonance element array is optimized.

16. (Previously presented) An antenna device as claimed in claim 2, wherein the plurality of resonance elements comprise linear conductors extending substantially perpendicular to an arrangement direction thereof and parallel to each other.

17. (Currently amended) An antenna device as claimed in claim [[1]] 2, wherein the plurality of resonance elements comprise linear conductors arranged substantially at a 45 degree angle relative to an arrangement direction thereof and parallel to each other.

18. – 20. (Canceled)